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EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
2615	30~

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 08/939,442	Applicant(s) Na et al	Examiner Christopher O. Onuaku
		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Sep 24, 2003
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12, 17-45, 48-50, and 53-68 is/are rejected.
- 7) Claim(s) 13-16, 46, 47, 51, and 52 is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

- 15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) Interview Summary (PTO-413) Paper No(s). _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

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DETAILED ACTION

Continued Examination Under 37 CAR 1.114

1. A request for continued examination under 37 CAR 1.114, including the fee set forth in 37 CAR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CAR 1.114, and the fee set forth in 37 CAR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CAR 1.114. Applicant's submission filed on 9/24/03 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12,17-45,48-50&53-68 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-8,10-12,17,20,22-24,26-35,39-41,43,45,48-50,53,56,58-60&62-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saib (US 6,097,878) in view of Yuen et al (US 6,430,359)..

Regarding claim 1, Saib discloses system and method for automatically loading programming data of a show to be recorded without manually inputting similar data through a timer screen, comprising:

- a) the claimed input device (see Fig.3, and remote control 315; col.3, line 58 to col.4, line 11);
- b) a receiver including a “first” digital interface (see col.4, lines 28-44) for generating a command based on the program information received from the input device, and for transferring the command via the first digital interface (see Fig.3&4, IRD 310 and IF 415; col.3, line 58 to col.4, line 44 and col.5, line 36 to col.6, line 65), here interface IF 415 complies with the IEEE 1394 standard, which inherently conforms to asynchronous transfer of control data, for example; and in Fig.4-5, col.5, line 36 to col.6, line 65, Saib discloses automatic loading (generating) of programming data (wherein no user input of identical information is necessary) associated with the desired show (television program) in order to record or display the desired show, by the remote control unit 315 issuing command to the IRD.
- c) recording/reproducing device including a “second” digital interface for decoding the command transferred from the receiver, and for recording/reproducing a multi-program transport stream being received, corresponding to the program information obtained by decoding the

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received command (see Fig.3, VCR 330; Fig.4; Fig.5 and IF 415 connecting to other peripherals, e.g., VCR; col.3, line 19 to col.4, line 44 and Fig.4-5, col.5, line 36 to col.6, line 65, which shows the automatic loading of programming data of a show to be viewed or recorded); here the IRD 310 is enabled to connect digital input peripheral devices such as digital VCRs, digital video disc players, etc. Therefore, the digital VCR enabled to connect to IEEE 1394 digital interface inherently includes a decoder to decode the received control command, which includes program information.

Saib fails to disclose a receiver for generating a control command based on the program information received from the input device, and for transferring the control command to a recording/reproduction device for decoding the control command transferred from the receiver and for recording/reproducing a multi-program transport stream being received, corresponding to the program information obtained by decoding the received command.

Yuen et al teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the encoded information in a television receiver, video cassette recorder, cable box and satellite receiver, comprising remote controller 12 a video cassette recorder/player with G-code decoder 14 which can be controlled by remote controller 12 via a command signal 16. The remote 12 can have a number of keys, which include numerical keys 20, G-code switch 22, function keys 24, program key 26. The G-code switch 22 is provided just to

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allow the user to lock the remote controller 12 in the G-code mode while using a G-code for programming a video cassette recorder/player, for example, wherein the video cassette recorder/player includes a G-code decoder, which converts the G-code into channel, date, time and length (CDTL) information which is used by the command controller 36 to set the time/channel programming 40 and use this CDTL information for tuning into the correct channel, starting and stopping the recording function of the VCR/player (see Fig.1-5, remote controller 12 with G-code switch 22, command controller 36, VCR/player 14 with G-code decoder 14; col.6, line 53 to col.7, line 14; col.8, lines 30-48)

Yuen further teaches G-code decoder in a cable box (see Fig.34), satellite receiver (see Fig.35) in television receiver (see Fig.32) in order for these devices to receive the G-code from the remote controller with G-code, wherein the G-code information CDTL can be used to tune to the correct channel, starting and stopping the recording function, for example. Here the G-code reads on the control command from the remote controller, and the devices with the G-code decoder reads on the receiver.

It is pertinent to note that Yuen teaches that, as shown above, the G-code decoder can be added to many electronic devices.

It would have been obvious to modify Saib by adding a G-code switch to the remote controller of Saib, as taught by Yuen, and also adding a G-code decoder to another electronic device, e.g., the IRD device of Saib, in order that the remote controller with the G-code switch

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would send a command control information (G-code-CDTL) to the IRD receiver 310 to tune into the correct channel and the starting and stopping the recording function of the VCR 330 of Saib.

Regarding claim 2, Saib further discloses wherein the input device is a remote controller (see Fig.3, remote control 315; col.3, line 58 to col.4, line 18.

Regarding claim 3, the claimed limitations of claim 3 are accommodated in the discussions of claim 1 above, including the claimed “first” and “second” processor.

Regarding claim 4, Saib further teaches wherein the input device is a remote controller (see col.5, line 64 to col.6, line 6).

Regarding claim 5, Saib discloses wherein the receiver is connected to one or more recording/reproducing devices using digital interface and the recording/reproducing devices are controlled by the input device (see col.4, lines 28-44).

Regarding claim 6, Saib discloses wherein the “first” digital interface generates the program number control command based on parsed PSI (see col.3, lines 35-44) here the PSI is read as the program information (e.g., show title, date of broadcast, broadcast channel number ,show start/end time, etc)of programs to be displayed or recorded

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Regarding claim 7, Saib discloses wherein the “first” and “second” digital interfaces are each an IEEE 1394 interface (see col.4, lines 28-44).

Regarding claim 8, Saib discloses wherein the “first” digital interface transfers the transport stream as isochronous packets during an isochronous transfer “mode”, and transfers the program number as asynchronous packets during an asynchronous transfer “mode” using “control command set”(see col.4, lines 28-44), IEEE-1394 standard inherently conforms to isochronous and asynchronous transfer of data.

Regarding claim 10, Saib discloses wherein the “first” digital interface transfers a multi-program transport stream isochronous packets in an isochronous transfer “mode, and the “second” digital interface transfers a “single program” (packet) transport stream as isochronous packets in the isochronous transfer mode during a playback “mode” (see col.4, lines 28-44-12 and col.5, lines 5-20), here the IRD 310 of Fig.3 can be connected to peripheral devices, e.g., VCR, through IEEE-1394 digital interface system which conforms to isochronous and asynchronous transfer of data..

Regarding claims 11&12, the claimed limitations of claims 11&12 are accommodated in the discussions of claim 10 above, since Saib processes multi-program transport stream.

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Regarding claim 17, Saib discloses wherein the first signal processor further comprises an on-screen graphic (OSG) generator for displaying the program guide information of a transport stream being received on an OSG display (see Fig.4; main logic block 410 of the IRD 310 (signal processor), and the main logic block 410 includes On-screen display logic block 550, and wherein CPU 525 (fig.5) loads a particular routine coded to control an on-screen display (OSD) logic 550 to produce the electronic guide screen (see Fig.4&5, col.5, lines 46-60.

Regarding claim 20, the claimed limitations of claim 20 are accommodated in the discussions of claim 17 above.

Regarding claim 22, the claimed limitations of claim 22 are accommodated in the discussions of claim 1 above.

Regarding claim 23, Saib discloses the method steps, comprising:

- a) parsing the program guide information from the transport stream and displaying the parsed program guide information (see col.3, lines 45-62);
- b) providing the program information of the intended program according to the displayed program guide information (see col.4, line 62 to col.4, line 11).

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Regarding claim 24, Saib discloses wherein the parsed program guide information is displayed on an OSD display (see Fig.4, main logic block 410 of the IRD 310 (signal processor), and the main logic block 410 includes On-screen display logic block 550, and wherein CPU 525 (Fig.5) loads a particular routine coded to control an on-screen display (OSD) logic 550 to produce the electronic guide screen; col.5, lines 46-60).

Regarding claim 26, Saib discloses a method comprising the steps providing a program number of the intended program to be recorded, transferring a command for inquiring as to whether to permit the recording of the program, receiving a response for permitting the recording of the program from the recording device, transferring a command for performing the recording of the program corresponding to the program number provided in the steps above, and receiving a response for notifying of the permission of the recording of the program corresponding to the program number, from the recording device (see col.5, lines 35 to col.6, line 58).

Regarding claim 27, the claimed limitations of claim 27 are accommodated in the discussions of claim 23 above.

Regarding claim 28, the claimed limitations of claim 28 are accommodated in the discussions of claim 24 above.

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Regarding claim 29, the claimed limitations of claim 29 are accommodated in the discussions of claim 24 above.

Regarding claim 30, the claimed limitations of claim 30 are accommodated in the discussions of claim 26 above.

Regarding claims 31,32&34, the claimed limitations of claims 31,32&34 are accommodated in the discussions of claim 1 above.

Regarding claim 33, the claimed limitations of claim 33 are accommodated in the discussions of claim 2 above.

Regarding claim 35, the claimed limitations of claim 35 are accommodated in the discussions of claim 3 above.

Regarding claim 39, the claimed limitations of claim 39 are accommodated in the discussions of claim 6 above.

Regarding claim 40, the claimed limitations of claim 40 are accommodated in the discussions of claim 7 above.

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Regarding claim 41, the claimed limitations of claim 41 are accommodated in the discussions of claim 8 above.

Regarding claim 43, the claimed limitations of claim 43 are accommodated in the discussions of claim 10 above.

Regarding claim 45, the claimed limitations of claim 45 are accommodated in the discussions of claim 12 above.

Regarding claim 48, the claimed limitations of claim 48 are accommodated in the discussions of claim 3 above.

Regarding claim 49, the claimed limitations of claim 49 are accommodated in the discussions of claim 12 above.

Regarding claim 50, the claimed limitations of claim 50 are accommodated in the discussions of claim 7 above.

Regarding claim 53, the claimed limitations of claim 53 are accommodated in the discussions of claim 17 above.

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Regarding claim 56, the claimed limitations of claim 56 are accommodated in the discussions of claim 17 above.

Regarding claim 58, the claimed limitations of claim 58 are accommodated in the discussions of claim 22 above.

Regarding claim 59, the claimed limitations of claim 59 are accommodated in the discussions of claim 23 above.

Regarding claim 60, the claimed limitations of claim 60 are accommodated in the discussions of claim 24 above.

Regarding claims 62&63, the claimed limitations of claims 62&63 are accommodated in the discussions of claim 26 above.

Regarding claim 64, the claimed limitations of claim 64 are accommodated in the discussions of claim 23 above.

Regarding claim 65, the claimed limitations of claim 65 are accommodated in the discussions of claim 24 above.

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Regarding claim 66, the claimed limitations of claim 66 are accommodated in the discussions of claim 24 above.

Regarding claim 67, the claimed limitations of claim 67 are accommodated in the discussions of claim 30 above.

Regarding claim 68, the claimed limitations of claim 68 are accommodated in the discussions of claim 1 above, except the recording/reproducing device (see Fig.1&10A710B).

5. Claims 21&57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saib in view of Yuen '359.

Regarding claim 21, Saib and Yuen '359 fail to explicitly disclose wherein the second signal processor does not parse the program guide information from a transport stream being received via the second digital interface, but this would have been an obvious engineering design consideration depending on the circuit at hand.

Regarding claim 57, the claimed limitations of claim 57 are accommodated in the discussions of claim 21 above.

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6. Claims 9&42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saib in view of Yuen '359 and further in view of Couts (US 5,742,730).

Regarding claim 9, Saib and Yuen '359 fail to disclose wherein the control command set is an audio/video control command and transaction set (AV/C CTS). Couts teaches a control system for rapidly and accurately positioning consumer-type VCRs to arbitrarily selected tape positions comprising wherein the "control command set" is an "audio/video control command and transaction set" (AV/C CTS) (see col.9, lines 43-61).

It would have been obvious to further modify Saib by adding the audio/video control command and transaction set" (AV/C CTS of Couts, in order that Saib would conform to the AV/C CTS standard.

Regarding claim 42, the claimed limitations of claim 42 are accommodated in the discussions of claim 9 above.

7. Claims 18,19,54&55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saib in view of Yuen '359 and further in view Fujii et al (US 5,966,385).

Regarding claim 18, Saib and Yuen '359 fail to explicitly disclose wherein the OSG generator mixes the program guide information with a graphic signal of a background screen to be provided to the OSG display.

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Fujii et al teach a receiver/decoder for receiving video and audio data compression encoded by high efficiency coding means and decoding the received encoded data, wherein when a specific information (SI) data is analyzed, if the data is program guide information, the OSD data is generated from this information and sent to the OSD processor 206 via the bus. The OSD processor 206 processes the OSD data ‘f’ and sends it to the video decoder 207 in synchronization with a sync ‘q’ of the video data decoded by the video decoder 207. In this manner, the program guide is displayed, for example, overlaid on the decoded video data (see Fig.17, col.13, lines 7-14), here examiner reads the decoded video data as the graphics signal of a background screen. Mixing the program guide information with a graphic signal of a background screen to be provided to the OSG display provides the desirable advantage of, for example, displaying the program guide information and the graphic signal simultaneously, thereby facilitating the user program selection operation, by the comparison of the program guide information with graphic signal.

It would have been obvious to further modify Saib by realizing Saib with the means to display the program guide overlaid (mixed with) on a video data, as taught by Fujii, since this provides the desirable advantage of, for example, displaying the program guide information and the graphic signal simultaneously, thereby facilitating the user program selection operation, by the comparison of the program guide information with graphic signal.

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Regarding claim 19, the claimed limitations of claim 19 are accommodated in the discussions of claim 18 above.

Regarding claim 54, the claimed limitations of claim 54 are accommodated in the discussions of claim 18 above.

Regarding claim 55, the claimed limitations of claim 55 are accommodated in the discussions of claim 18 above.

8. Claims 25,36,37,38,44&61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saib in view of Yuen et al (US 6,430,359) and further in view of Yuen et al (US 5,488,409).

Regarding claim 36, Saib and Yuen '359 fail to explicitly show an input device for inputting the program number of an intended program. Yuen '409 teaches apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette or magnetic tape, including automatic monitoring of the operation of a video cassette recorder, wherein a user can select a program from the directory screen for playback by entering the corresponding number of the program as displayed (see col.46, line 64 to col.47, line 2). An input device for inputting the program number of an intended program provides the desirable advantage of, for example, allowing the user to select and input the program number of a program a user desires to play or record.

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It would have been obvious to further modify Saib by realizing Saib with an input device for inputting the program number of an intended program, as taught by Yuen '409, since this provides the desirable advantage of, for example, allowing the user to select and input the program number of a program a user desires to play or record.

Regarding claim 25, Yuen '409 further teaches the method comprising the steps of transferring a "command" for inquiring whether to permit the transfer of the program number of the program recorded in the recording medium, from the receiver to the recording/reproducing device, during a playback mode, and receiving the program number of the program recorded in the recording medium, from the recording/reproducing device (see col.17, lines 1-16.

Regarding claim 37, the claimed limitations of claim 37 are accommodated in the discussions of claim 2 above.

Regarding claim 38, the claimed limitations of claim 38 are accommodated in the discussions of claim 5 above.

Regarding claim 44, the claimed limitations of claim 44 is accommodated in the discussions of claim 10 above.

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Regarding claim 61, the claimed limitations of claim 61 are accommodated in the discussions of claim 25 above.

Allowable Subject Matter

9. Claims 13-16,46-47,51&52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 13, the prior art of record fails to show or fairly suggest a multi-media system comprising a first and second digital interfaces, each of which is an IEEE 1394 interface where the multimedia system further comprises wherein the first digital interface comprises a first microcomputer including a transaction layer and a serial bus management layer, as software, for generating the program information control command based on the program information received from the input device, using a write transaction and a read transaction, a first link layer for adding an asynchronous header to the program information control command received from the first microcomputer to convert the program information control command into serial data, and a first physical layer for converting the serial data into an electrical signal.

Regarding claim 46, the prior art of record fails to show or fairly suggest a digital Audio/video device having a receiver for receiving a transport stream comprising a signal

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processor, a digital interface, an input device, the receiver is connected to at least one recording/reproducing device using the digital interface and the receiver and the recording/reproducing device are controlled by the input device, where the A/V device further comprises wherein the digital interface comprises a first microcomputer including a transaction layer and a serial bus management layer, as software, for generating the program information control command based on the program information input via the input device, using a write transaction and a read transaction, a first link layer for adding an asynchronous header to the control command generated by the first microcomputer to convert the control command into serial data, and a first physical layer for converting the control command serial data into an electrical signal.

Regarding claim 51, the prior art of record fails to show or fairly suggest a digital audio/video recording/reproducing device for recording/reproducing a transport stream transferred from a digital A/V device, the recording/reproducing device comprising a digital interfaces, and a signal processor, and the digital interface comprises an IEEE 1394 interface where the digital A/V recording/reproducing device further comprises wherein the digital interface comprises a second physical layer for converting the program information command electrical signal, transferred from the first physical layer, into digital data, a second link layer for converting the program information command digital data into parallel data, and for removing the asynchronous header, and a second microcomputer including a transaction layer and a serial

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bus management layer, as software, for recording the program information on a predetermined region of a recording medium by recognizing the program information command during a recording mode, and for reading out the program information recorded in the predetermined region during a playback mode.

Conclusion

11. Any inquiry concerning this communication or earlier communications from this examiner should be directed to Christopher Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on Tuesday to Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Monday.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Andrew B. Christensen, can be reached on (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

and (for informal or draft communications, please label "PROPOSED" or
"DRAFT")

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be direct
to Customer Service whose telephone is (703) 306-0377.

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COO

12/13/03

J. Tran
THAI TRAN
PRIMARY EXAMINER